ABSTRACT OF THE INVENTION

The present invention provides a proxy process and system for emulating card-present credit card transactions in credit card transactions occurring over a computer network. The process involves collecting credit card information and identification information from the cardholder and presenting that information to an identifier. Once the cardholder has been identified by the identifier, an authentication server generates a code and transmits the code to the cardholder to "set up" the credit card. The cardholder possessing both the credit card information and the code then sends that information and code from the cardholder's PC to the authentication server, which compares the credit card information and code to the credit card information and code stored from the credit card set up and if they match, a secure pay digital certificate is issued to the cardholder's computer. The certificate identifies the cardholder's computer as belonging to the person authorized to enter into purchase transactions using the specified credit card. Thereafter, credit card transactions originating from the cardholder computer possessing the secure pay digital certificate can be assumed to be transactions entered into by the positively identified cardholder. The cardholder may tender the credit card information as payment to an online merchant. The merchant checks for the presence of a secure pay certificate from the cardholder's PC prior to accepting the credit card information as payment, and verifies the validity of the certificate.